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(54) **ELECTRIC VEHICLE WITH MODULAR  
REMOVABLE AUXILIARY BATTERY WITH  
INTEGRATED COOLING**

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(57) **ABSTRACT**

An electric vehicle system for transporting human passengers or cargo includes an electric vehicle that includes a body, a plurality of wheels, a cargo area, an electric motor for propelling the electric vehicle, and a primary battery for providing electrical power to the electric motor for propelling the electric vehicle. An auxiliary battery module is attachable to the electric vehicle for providing electrical power to the electric motor via a first electrical connector at the auxiliary battery module and a second electrical connector at the electric vehicle that mates with the first electrical connector. The auxiliary battery module can be positioned in the cargo area while supplying power to the electric motor, and can be removable and reattachable from the electric vehicle. The auxiliary battery module includes an integrated cooling system for cooling itself during operation of the electric vehicle including a conduit therein for circulating coolant.

